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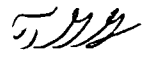
STEPHEN D. COAN
STATE FIRE MARSHAL


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DEPUTY STATE FIRE MARSHAL

MEMORANDUM

TO: Heads of Fire Departments and Local Building Officials

FROM: Stephen D. Coan 
State Fire Marshal

Thomas G. Gatzunis, P.E. 
Commissioner of Public Safety

G. Gahr Finney, Chairman 
Board of Elevator Regulations

DATE: July 28, 2005

SUBJECT: Sprinklers in Elevator Machine Rooms, Elevator Hoistways, and Elevator Pits

There has been much confusion regarding recent changes in the Massachusetts Elevator Regulations (524 CMR) concerning the removal of sprinklers and shunt trip devices from the elevator machine rooms, elevator hoistways, and elevator pits.

Sprinklers and Sprinkler Piping:

Effective January 1st, 2004, section 524 CMR 17.02(20)(f)(1) required that all sprinkler heads and the associated piping must be removed from all existing elevator machine rooms, hoistways, and pits. The sprinkler piping must be cut and capped outside the wall of the machine room, hoistway and/or pit and removed.

Shunt Trip Device:

Effective January 1st, 2004, section 524 CMR 17.02(20)(f)(2) required that the automatic main line power disconnecting devices (shunt trip device) shall be disabled, disconnected or removed.

When a State Elevator Inspector finds sprinklers and sprinkler piping in an elevator machine room, hoistway and/or pit or a shunt trip device that is not disabled or removed, the inspector typically gives the building owner 180 days to come into compliance.

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Permits:

In accordance with *M.G.L. 148 § 27A*, no person shall shut off, disconnect or remove any part of any sprinkler system without first procuring a written permit from the local head of the fire department.

Fire Detection Equipment (smoke and heat detectors):

Section 524 CMR 17.02(20)(f) requires the removal of the sprinkler and the piping, and the disabling, disconnection or removal of the shunt trip device, but does **not** require the removal of any fire detection equipment in the machine room, hoistway and/or pit.

Typical elevator hoistways and machine rooms experience ambient conditions (dust, dirt, and humidity) that significantly increase the possibility of smoke detector nuisance alarms. In these locations, it is recommended that the smoke detector be replaced with an appropriate heat detector. In accordance with *2002 NFPA 72: 6.15.3.7*:

If ambient conditions prohibit installation of automatic smoke detection, other automatic fire detection shall be permitted.

Depending on the site-specific situation, the fire detection equipment might not be required. Obviously, if required, careful consideration of nuisance alarms must be given to allow a smoke detector to remain in a machine room or hoistway.

Checklist:

In order to reduce confusion, the following checklist has been developed for use during inspections of buildings, which have elevators (See attached sheet).

Inspection Date: _____

Building Address: _____

City/Town: _____ Zip: _____

Elevator Number: _____ Elevator Location: _____

Contact's Name: _____ Telephone: _____

Inspector's Name: _____

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Sign on machine room door reading "Elevator Machine Room – No Storage Allowed". Letters on sign must be at least ¾ inch and in a color contrasting the background color. (524 CMR 17.02(9))
<input type="checkbox"/>	<input type="checkbox"/>	All materials not directly related to the elevator equipment shall be prohibited from storage in any elevator machine room. (524 CMR 17.02(20)(a))
<input type="checkbox"/>	<input type="checkbox"/>	Elevator related material stored in machine rooms shall be stored in non-combustible containers. (524 CMR 17.02(20)(b))
<input type="checkbox"/>	<input type="checkbox"/>	All flammable or combustible liquids shall be kept in approved containers and secured in an approved flammable liquids locker. The amount stored shall be regulated by 527 CMR. (524 CMR 17.02(20)(c))
<input type="checkbox"/>	<input type="checkbox"/>	All machine rooms shall contain a 20-ABC fire extinguisher in accordance with 527 CMR. In lieu of a 20-ABC fire extinguisher, two 10-ABC fire extinguishers shall be acceptable. (524 CMR 17.02(20)(d)) Fire extinguishers shall be conspicuously mounted where they will be readily accessible and immediately available and shall be clearly marked. They shall not be obstructed or obscured from view.
<input type="checkbox"/>	<input type="checkbox"/>	The machine room door fire rating, firewall penetrations and other building conditions that would prevent the spread of fire and/or smoke from the machine room shall conform to the requirements of 780 CMR. (524 CMR 17.02(20)(e))
<input type="checkbox"/>	<input type="checkbox"/>	If an existing electric traction, drum or hydraulic elevator machine room, hoistway or pit contains sprinklers; the sprinklers shall be removed per 780 CMR (524 CMR 17.02(20)(f)): (1) By January 1, 2004, the existing water supply piping for the sprinklers shall be cut off at the wall outside the machine room or hoistway and the piping capped. (2) Automatic main line power disconnecting devices shall be disabled or removed.